

**Comments on texts resulting from the Terrestrial Animal Health Code Commission Report –  
January 2005 Meeting  
Submitted by the United States of America**

**Appendix 3.8.1  
General Guidelines for Animal Health Surveillance**

**General Comment:** The United States commends the work of both the Code and Scientific Commissions for developing and drafting a much improved appendix on Animal Health Surveillance. We believe this draft is a significant improvement over previous proposed drafts.

**Specific comments:**

Article 3.8.1.3

**Principles of surveillance**

1) Types of surveillance

a) ....

d) The sources of evidence should be fully described. In the case of a structured survey, this should include a description of the sampling strategy and sampling frame used for the selection of units for testing. For structured non-random data sources, a full description of the system is required including the source(s) of the data, when the data were collected, and a consideration of any biases that may be inherent in the system.

**Rationale:** The United States recommends that a description of the sampling frame should also be included. A perfect sampling strategy could be followed (and therefore undermined) by using an inadequate sampling frame from which the sampling units are selected. (Sampling frame – meaning the list of units used to randomly select the sampling units).

**Comments on texts resulting from the Terrestrial Animal Health Code Commission Report –  
January 2005 Meeting  
Submitted by the United States of America**

Article 3.8.1.4

**Structured population-based surveys**

...

- 1) Types of surveys
  - a. ...
  - b. probability sampling methods such as:
    - i. simple random selection;
    - ii. cluster sampling;
    - iii. stratified sampling;
    - iv. systematic sampling.

Non-probability based sampling methods will not be discussed further.

~~2) Systematic selection~~

Periodic or repeated surveys conducted in order to document disease freedom should be done using probability based sampling methods so that data from the study population can be extrapolated to the target population in a statistically valid manner.

~~The sources of information should be fully described and should include a detailed description of the sampling strategy used for the selection of units for testing. Also, consideration should be made of any biases that may be inherent in the survey design.~~

**Rationale:** Placing the category of “systematic sampling” under the “types of surveys” category is more appropriate and a better fit to describe the types of surveys that are available.

~~3) Survey design~~

The population of epidemiological units should first be clearly defined; hereafter sampling units appropriate for each stage, depending on the design of the survey, should be defined.

The design of the survey will depend on the size and structure of the population being studied, the epidemiology of the infection and the resources available.

~~4) Sampling~~

The objective of sampling from a population is to select a subset of units from the population that is representative of the population with respect to the object of the study such as the presence or absence of infection. Sampling should be carried out in such a way as to provide the best likelihood that the sample will be representative of the population, within the practical constraints imposed by different environments and production systems. In order to detect the presence of an infection in a population of unknown disease status targeted sampling methods that optimise the detection of infection can be used. In such cases, care should be taken regarding the inferences made from the results.

~~5) Sampling methods~~

When selecting epidemiological units from within a population, ~~a formal~~ probability sampling ~~method~~ (e.g. simple random sampling) should be used. When this is not possible, sampling

**Comments on texts resulting from the Terrestrial Animal Health Code Commission Report –  
January 2005 Meeting  
Submitted by the United States of America**

should provide the best practical chance of generating a sample that is representative of the target population.

In any case, the sampling method used at all stages should be fully documented and justified.

**65) Sample size**

In general, surveys are conducted either to demonstrate the presence or absence of a factor (e.g. infection) or to estimate a parameter (e.g. the prevalence of infection). The method used to calculate sample size for surveys depends on the purpose of the survey, the expected prevalence, the level of confidence desired of the survey results and the performance of the tests used.